

=> fil hcaplu  
FILE 'HCAPLUS' ENTERED AT 09:17:19 ON 17 JUL 2003  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 17 Jul 2003 VOL 139 ISS 3  
FILE LAST UPDATED: 16 Jul 2003 (20030716/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d stat que  
L1 26 SEA FILE=HCAPLUS ABB=ON (.TAUER C?) OR (TAUER,C?) OR (TAUER,  
C?)/AU, IN  
L2 3831 SEA FILE=HCAPLUS ABB=ON ((MEYER H?) OR (MEYER,H?) OR (MEYER,  
H?)/AU, IN  
L3 40 SEA FILE=HCAPLUS ABB=ON ((MITTERER A?) OR (MITTERER,A?) OR  
(MITTERER, A?)/AU, IN  
L4 127 SEA FILE=HCAPLUS ABB=ON ((BARRETT N?) OR (BARRETT,N?) OR  
(BARRETT, N?)/AU, IN  
L5 4014 SEA FILE=HCAPLUS ABB=ON L1 OR L2 OR L3 OR L4  
L6 7 SEA FILE=HCAPLUS ABB=ON L5 AND (HEPATITIS(W)A OR HAV)

=> d ibib abs hitrn 16 1-7

L6 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2003:472410 HCAPLUS  
TITLE: Method of production of purified hepatitis  
A virus particles, and their use in vaccine  
preparation  
INVENTOR(S): Tauer, Christa; Meyer, Heidi; Mitterer,  
Artur; Barrett, Noel  
PATENT ASSIGNEE(S): Baxter Healthcare S.A., Switz.  
SOURCE: PCT Int. Appl., 40 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.    | KIND   | DATE     | APPLICATION NO. | DATE     |
|---------------|--|----------|-----------------|----------|
| WO 2003049766 | A2   | 20030619 | WO 2002-EP14008 | 20021210 |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,<br>CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, |          |                 |          |

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,  
 RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG

US 2003124511 A1 20030703 US 2001-6205 20011210

PRIORITY APPLN. INFO.: US 2001-6205 A 20011210

AB The present invention provides methods of purifn. of **hepatitis A** virus (**HAV**) from the supernatant of an infected cell culture by filtering and virus inactivation treatment and prodn. of a prepn. of purified **HAV** antigen under serum-free conditions. Contaminating impurities which might derive from the cells or the cell culture medium are efficiently removed by the method of invention. The invention is also directed to an **HAV** vaccine compn. comprising a prepn. consisting of purified mature **HAV** particles in an amt. sufficient to induce a protective immune response. The vaccine of present invention was compared in regards to its immunogenicity with 2 com. vaccines (VAQTA 50U and HAVRIX 1440). The antibody titers of the pooled sera of mice given the undiluted vaccine of invention at 15-20 IU/mL were 3541 mIU/mL compared to 2541 mIU/mL and 691 mIU/mL when given undiluted VAQTA and HAVRIX, resp.

L6 ANSWER 2 OF 7 HCPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2003:454904 HCPLUS

DOCUMENT NUMBER: 139:21090

TITLE: Large scale production of **Hepatitis**

A virus in microcarrier bound Vero cells

INVENTOR(S): Meyer, Heidi; Reiter, Manfred; Mundt, Wolfgang; Barrett, Noel; Dorner, Friedrich

PATENT ASSIGNEE(S): Austria

SOURCE: U.S. Pat. Appl. Publ., 11 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| US 2003108861  | A1   | 20030612 | US 2001-6882    | 20011210 |
| WO 2003049767  | A2   | 20030619 | WO 2002-EP14012 | 20021210 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,<br>CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,<br>GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,<br>LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,<br>PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,<br>UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,<br>RU, TJ, TM<br>RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,<br>CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,<br>PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,<br>MR, NE, SN, TD, TG |      |          |                 |          |

PRIORITY APPLN. INFO.: US 2001-6882 A 20011210

AB The present invention provides methods of large scale prodn. of **Hepatitis A** Virus (**HAV**) on Vero cells bound to

microcarrier. The invention also provides for methods of isolation of HAV from the cell culture supernatant of HAV infected VERO cells.

L6 ANSWER 3 OF 7 HCPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 1999:565945 HCPLUS  
DOCUMENT NUMBER: 131:204586  
TITLE: Method for the elimination of pathogens from solutions containing proteins  
INVENTOR(S): Barrett, Noel; Dorner, Friedrich; Linnau, Yendra; Poelsler, Gerhard; Schwarz, Hans-Peter; Teschner, Wolfgang  
PATENT ASSIGNEE(S): Immuno Aktiengesellschaft, Austria  
SOURCE: PCT Int. Appl., 20 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| WO 9943362  | A1   | 19990902 | WO 1999-AT46    | 19990224   |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |            |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |            |
| AT 9800341  | A    | 20000215 | AT 1998-341     | 19980225   |
| AT 406873   | B    | 20001025 |                 |            |
| AU 9925028  | A1   | 19990915 | AU 1999-25028   | 19990224   |
| PRIORITY APPLN. INFO.:  |      |          | AT 1998-341     | A 19980225 |
|   |      |          | WO 1999-AT46    | W 19990224 |

AB Pathogens are eliminated from a soln. contg. plasma proteins by filtration. The soln. is incubated in the presence of an inorg., particulate, surface-active detergent (e.g. a filter aid such as Aerosil) and filtered in a deep-bed filter to obtain a clear soln. Thus, a 2.5% Ig soln. contg. parvovirus B19 was treated with Aerosil 380 (15 mg/g protein) for 1 h at room temp. and filtered through a CUNO SA90 filter to reduce the virus titer to <101.7.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 7 HCPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 1999:9735 HCPLUS  
DOCUMENT NUMBER: 130:71519  
TITLE: Process for reducing the concentration of viral and molecular pathogens in a biological material and its application to blood products  
INVENTOR(S): Eibl, Johann; Dorner, Friedrich; Barrett, Noel; Poelsler, Gerhard; Linnau, Yendra  
PATENT ASSIGNEE(S): Immuno Aktiengesellschaft, Austria  
SOURCE: PCT Int. Appl., 16 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 9857672  | A2   | 19981223 | WO 1998-AT143   | 19980610 |
| WO 9857672  | A3   | 19990318 |                 |          |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,<br>DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,<br>KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,<br>NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,<br>UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM<br>RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,<br>FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,<br>CM, GA, GN, ML, MR, NE, SN, TD, TG |      |          |                 |          |
| AT 9701029  | A    | 20000515 | AT 1997-1029    | 19970613 |
| AT 407159   | B    | 20010125 |                 |          |
| AU 9877500  | A1   | 19990104 | AU 1998-77500   | 19980610 |
| AU 726808   | B2   | 20001123 |                 |          |
| EP 988063   | A2   | 20000329 | EP 1998-925314  | 19980610 |
| EP 988063   | B1   | 20020828 |                 |          |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, FI  |      |          |                 |          |
| EP 1004323  | A1   | 20000531 | EP 2000-100420  | 19980610 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, FI  |      |          |                 |          |
| BR 9810098  | A    | 20000808 | BR 1998-10098   | 19980610 |
| JP 2002505674   | T2   | 20020219 | JP 1999-503396  | 19980610 |
| AT 222778   | E    | 20020915 | AT 1998-925314  | 19980610 |
| ES 2181227  | T3   | 20030216 | ES 1998-925314  | 19980610 |
| AT 9900952  | A    | 20001015 | AT 1999-952     | 19990528 |
| AT 407744   | B    | 20010525 |                 |          |
| NO 9906118  | A    | 20000210 | NO 1999-6118    | 19991210 |
| MX 9911516  | A    | 20000531 | MX 1999-11516   | 19991210 |
| AU 726999   | B2   | 20001130 | AU 1999-64478   | 19991213 |
| AU 9964478  | A1   | 20000224 |                 |          |
| NO 2000003584   | A    | 20000210 | NO 2000-3584    | 20000712 |
| US 2002018985   | A1   | 20020214 | US 2001-934330  | 20010820 |
| US 6465170  | B2   | 20021015 |                 |          |

## PRIORITY APPLN. INFO.:

|                |    |          |
|----------------|----|----------|
| AT 1997-1029   | A  | 19970613 |
| EP 1998-925314 | A3 | 19980610 |
| WO 1998-AT143  | W  | 19980610 |
| US 2000-445862 | A1 | 20000518 |

AB The invention concerns the decontamination of biol. materials by reducing the concn. of viral and mol. pathogens in a manner that the biol. material is mixed with an org. solvent and brought in contact with an ion exchanger; pathogens are adsorbed onto the exchanger; at least one of the target materials is not adsorbed or only slightly adsorbed. The biol. materials are e.g. blood, blood fractions; target substances are IgGs, blood coagulation factors; the org. solvent is an alc., e.g. ethanol; the ion exchanger is a DEAE-type, e.g. DEAE-Sephadex. The process can be performed in a batch mode or in a flow-through mode; for sepn. of the used adsorbent, filtration can be applied. Thus to IgG contg. Cohn II+III fraction, 10-14% ethanol was added and the soln. was cooled between -3.degree.C and -1.degree.C; the soln. was spiked with various viruses. For each gram of protein 0.5 g of DEAE-Sephadex A-50 was stirred in; pH was set to 6.2. After 6 h of stirring the slurry was filtrated. The yield of IgG was >70%; the virus content was measured by virus titrn. or

PCR; the removal of viruses was substantial.

L6 ANSWER 5 OF 7 HCPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1997:740140 HCPLUS  
 DOCUMENT NUMBER: 128:7298  
 TITLE: Biological material free of viral and molecular pathogens and process for its production  
 INVENTOR(S): Barrett, Noel; Eibl, Johann; Dorner, Friedrich; Poelsler, Gerhard; Haemmerle, Thomas  
 PATENT ASSIGNEE(S): Immuno Aktiengesellschaft, Austria; Barrett, Noel; Eibl, Johann; Dorner, Friedrich; Poelsler, Gerhard; Haemmerle, Thomas  
 SOURCE: PCT Int. Appl., 50 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| WO 9740861  | A1   | 19971106 | WO 1997-AT75    | 19970423   |
| W: AU, CA, IL, JP, NO, US   |      |          |                 |            |
| RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE    |      |          |                 |            |
| AT 9600780  | A    | 19970715 | AT 1996-780     | 19960430   |
| AT 403477   | B    | 19980225 |                 |            |
| AU 9725612  | A1   | 19971119 | AU 1997-25612   | 19970423   |
| AU 731048   | B2   | 20010322 |                 |            |
| EP 900089   | A1   | 19990310 | EP 1997-917167  | 19970423   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI |      |          |                 |            |
| JP 2000510107   | T2   | 20000808 | JP 1997-538394  | 19970423   |
| NO 9804979  | A    | 19981223 | NO 1998-4979    | 19981026   |
| PRIORITY APPLN. INFO.:  |      |          | AT 1996-780     | A 19960430 |
|   |      |          | WO 1997-AT75    | W 19970423 |

AB Biol. material is freed from or depleted in pathogens, esp. viral pathogens, by contacting it with a ligand or receptor which reacts with a receptor or ligand of the pathogen, thereby producing a ligand/receptor complex, and sepn. of the ligand/receptor complex by a process which separates the complexed pathogen partially or completely from the biol. material. Thus, hepatitis A virus was 100% removed from a soln. of human serum albumin by addn. of a human antibody to hepatitis A virus, followed by tangential-flow filtration for 4 h through a 35-nm nanofilter.

L6 ANSWER 6 OF 7 HCPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1997:684302 HCPLUS  
 DOCUMENT NUMBER: 127:351168  
 TITLE: Process for disintegrating nucleic acids and preparing biological products of guaranteed quality  
 INVENTOR(S): Dorner, Friedrich; Barrett, Noel; Eibl, Johann  
 PATENT ASSIGNEE(S): Immuno A.-G., Austria; Dorner, Friedrich; Barrett, Noel; Eibl, Johann  
 SOURCE: PCT Int. Appl., 70 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE       |
|--|------|----------|-----------------|------------|
| WO 9737686   | A1   | 19971016 | WO 1997-AT68    | 19970408   |
| W: CA, JP, US  |      |          |                 |            |
| RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE   |      |          |                 |            |
| AT 9600629   | A    | 20000115 | AT 1996-629     | 19960409   |
| AT 406778  | B    | 20000925 |                 |            |
| EP 900087  | A1   | 19990310 | EP 1997-915196  | 19970408   |
| EP 900087  | B1   | 20021009 |                 |            |
| R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL  |      |          |                 |            |
| AT 225669  | E    | 20021015 | AT 1997-915196  | 19970408   |
| ES 2185003   | T3   | 20030416 | ES 1997-915196  | 19970408   |
| US 6165711   | A    | 20001226 | US 1998-155758  | 19981118   |
| PRIORITY APPLN. INFO.:   |      |          | AT 1996-629     | A 19960409 |
|  |      |          | WO 1997-AT68    | W 19970408 |
| AB A biol. active material is exposed .gtoreq.1 time to a laser beam (.ltoreq.0.1 J/cm <sup>2</sup> ) to disintegrate the entire biol. active nucleic acid in the material, while the biol. integrity and activity of the biol. material are retained. Contaminating nucleic acids and viruses can thus be destroyed by laser irradn., optionally in the presence of a photosensitizer, in therapeutic biol. products such as vaccines produced in mammalian cell cultures. The quality of the product, in terms of absence of contaminating nucleic acid, is verified by use of a nucleic acid amplification assay such as laser-induced fluorescence-PCR. Thus, a recirculating system is described in which a virus-contg. suspension can be inactivated by repeated exposure to laser radiation in a tube or cuvette with a glass window. HIV-1, tick-borne encephalitis virus, influenza virus, and herpes simplex virus 1 were inactivated by 10 cycles of exposure to radiation from a He-Ne laser at 633 nm and 10 mW in the presence of 2 .mu.M methylene blue. Poliovirus was relatively resistant, being fully inactivated by this treatment only at 30 .mu.M methylene blue. |      |          |                 |            |

L6 ANSWER 7 OF 7 HCPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1996:440965 HCPLUS

DOCUMENT NUMBER: 125:84835

TITLE: Method for producing biologicals in protein-free culture

INVENTOR(S): Kistner, Otfried; Barrett, Noel; Mundt, Wolfgang; Dorner, Friedrich

PATENT ASSIGNEE(S): Immuno Aktiengesellschaft, Austria

SOURCE: PCT Int. Appl., 97 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| WO 9615231   | A2   | 19960523 | WO 1995-EP4439  | 19951110 |
| WO 9615231   | A3   | 19960801 |                 |          |
| W: CA, FI, JP, NO, US  |      |          |                 |          |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                 |          |
| US 5753489   | A    | 19980519 | US 1995-487046  | 19950607 |
| US 5756341   | A    | 19980526 | US 1995-483522  | 19950607 |
| EP 791055  | A1   | 19970827 | EP 1995-937888  | 19951110 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, IE, IT, LI, NL, SE              |      |          |                 |          |

|                        |    |          |                |            |
|------------------------|----|----------|----------------|------------|
| JP 10503093            | T2 | 19980324 | JP 1995-515726 | 19951110   |
| FI 9701998             | A  | 19970509 | FI 1997-1998   | 19970509   |
| PRIORITY APPLN. INFO.: |    |          | US 1994-338761 | A 19941110 |
|                        |    |          | US 1995-483522 | A 19950607 |
|                        |    |          | US 1995-487046 | A 19950607 |
|                        |    |          | US 1995-487222 | A 19950607 |
|                        |    |          | WO 1995-EP4439 | W 19951110 |

AB The present invention includes an approach for producing viruses, such as influenza, and vaccines derived therefrom as well as recombinant proteins derived from viral vectors, by utilizing vertebrate cells cultured under protein-free conditions. These cells, which include a cellular biomass, show improved capabilities for propagating viruses and eliminate the need for costly and time-consuming viral passaging and purifn. The invention also includes further approaches for enhancing the propagation of viruses by employing activating substances, modifying the activation site of viruses, and using augmentation loops. Improved approaches for producing viral reassortants also are provided.